What is claimed is:

1. A retention mechanism for mounting an integrated circuit package to a circuit board, comprising:

a dish-shaped, elastically deformable pressure plate, having a first apex and a first periphery spaced away from the first apex, the pressure plate being deformable by applying a first force to the first periphery directed generally towards the first apex;

a dish-shaped, elastically deformable backing plate, having a second apex and a second periphery spaced away from the second apex, the backing plate being deformable by applying a second force to the second periphery directed generally towards the second apex; and

means for simultaneously applying the first and second deforming forces to the first and second peripheries to engage the first apex with a surface of the integrated circuit package and the second apex with a surface of the circuit board so as to effect continuous electrical continuity between the integrated circuit package and the circuit board.

2. The retention mechanism of claim 1 wherein an average contact resistance between the integrated circuit package and the circuit board is less than about 50 milliohms.

3. The retention mechanism of claim 2 wherein the average contact resistance is about 13 milliohms.

4. The retention mechanism of claim 1 further comprising an elastically deformable gasket positioned between the pressure plate and the integrated circuit package.

5. The retention mechanism of claim 4 wherein one or more of the pressure plate, the backing plate, or the gasket define one or more windows to expose one or more selected portions of the plates or the circuit board.

6. The retention mechanism of claim 4 wherein the gasket has a height less than about 2 millimeters.

7. The retention mechanism of claim 6 wherein the gasket has a height less than about 1 millimeter.

8. The retention mechanism of claim 1 wherein the plates are made from a material selected from the group consisting of beryllium copper and steel.

9. The retention mechanism of claim 1 wherein one or more of the first and second peripheries is fractal-shaped.

10. The retention mechanism of claim 1 wherein the backing plate is in contact with a circuit board having a back side and the fractal-shaped periphery to enable a plurality of components to be attached to the back side of the circuit board, after the integrated circuit package has been mounted to the circuit board.

11. A retention mechanism comprising:

a paraboloid, elastically deformable pressure plate, having a concave surface, a convex surface, a summit, and a periphery spaced away from the summit, the pressure plate being deformable by applying a first force to the periphery directed generally towards the summit;

an integrated circuit package having a top and a bottom surface, the convex surface of the pressure plate being contactable by the top surface;

a circuit board having a top and a bottom surface, the bottom surface of the

integrated circuit package being contactable by the top surface; and

a paraboloid, elastically deformable backing plate, having a concave surface, a convex surface, a summit, and a periphery spaced away from the summit, the backing plate being deformable by applying a second force, opposing the first force, to the periphery of the backing plate directed generally towards the summit of the backing plate, the bottom surface of the circuit board being contactable by the convex surface of the backing plate; and

one or more fasteners to simultaneously apply the first and second deforming forces to the peripheries of the plates

to engage the top surface of the integrated circuit package with the convex surface of the pressure plate and the bottom surface of the circuit board with the convex surface of the backing plate and

to deform the plates so as to effect continuous electrical continuity between the integrated circuit package and the circuit board.

12. The retention mechanism of claim 11 further comprising a connector interposed between the integrated circuit package and the circuit board.

13. The retention mechanism of claim 12 wherein the connector has a height less than about 2 millimeters.

14. The retention mechanism of claim 13 wherein the connector has a height less than about 1 millimeter.

15. The retention mechanism of claim 12 wherein the integrated circuit package is pinless and the connector is without pin holes.

16. The retention mechanism of claim 11 wherein the summit of the pressure plate is located on the convex surface of the pressure plate and the periphery of the pressure plate is located on the concave surface of the pressure plate, and the height from the summit of the pressure plate to the periphery of the pressure plate is less than about 2 millimeters.

17. The retention mechanism of claim 16 wherein the height from the summit to the periphery is less than about 1.5 millimeters.

18. The retention mechanism of claim 11 wherein the summit of the backing plate is located on the concave surface of the backing plate and the periphery of the backing plate is located on the convex surface of the backing plate, and the height from the periphery to the summit is less than about 2 millimeters.

19. The retention mechanism of claim 18 wherein the height from the periphery to the summit is less than about 1.5 millimeters.

20. The retention mechanism of claim 11 wherein the integrated circuit package includes an organic land grid array.

21. The retention mechanism of claim 11 wherein the integrated circuit package includes a flip chip pin grid array.

22. The retention mechanism of claim 11 further comprising a heat sink in contact with the concave surface of the pressure plate.

23. An electronic assembly comprising:
a paraboloid, elastically deformable pressure plate, having a concave surface, a convex surface, a summit, and a periphery spaced away from the

summit, the pressure plate deformed by first force applied to the periphery directed generally towards the summit;

an integrated circuit package having a top and a bottom surface, the top surface in contact with the convex surface of the pressure plate;

a circuit board having a top and a bottom surface, the top surface in contact with the bottom surface of the integrated circuit package; and

a paraboloid, elastically deformable backing plate, having a concave surface, a convex surface, a summit, and a periphery spaced away from the summit, the backing plate deformed a second force, opposing the first force, applied to the periphery of the backing plate directed generally towards the summit of the backing plate, the convex surface of the backing plate in contact with the bottom surface of the circuit board; and

means for simultaneously applying the first and second deforming forces to the periphery of the pressure plate and the periphery of the backing plate

to engage the convex surface of the pressure plate with the top surface of the integrated circuit package and the convex surface of the backing plate with the bottom surface of the circuit board and

to deform the plates so as to effect continuous electrical continuity between the integrated circuit package and the circuit board.

24. The electronic assembly of claim 23 further comprising a connector interposed between the integrated circuit package and the circuit board.

25. The electronic assembly of claim 23 further comprising an elastically deformable gasket interposed between the pressure plate and the integrated circuit package.

26. A method of testing a retention mechanism comprising:
creating a daisy chain from a circuit board through a connector into a integrated circuit package to a die and back to the circuit board; and
measuring resistance between the die and the circuit board.

27. The method of testing of claim 26 further comprising:
determining the contribution of the connector to the total resistance; and
determining the extent of contact between the connector and the integrated circuit package.

28. The method of testing of claim 26 further comprising:
measuring the resistance between the integrated circuit package and the circuit board.

29. A method of assembling an electronics assembly comprising:
placing an integrated circuit package on a circuit board;
placing a slightly curved pressure plate on a top surface of the integrated circuit package;
placing a slightly curved backing plate on a bottom surface of the circuit board; and
applying force to outer edges of the plates to retain the integrated circuit package on the circuit board and to create an evenly distributed pressure across conductors of the integrated circuit package.

30. The method of claim 29 further comprising:
placing a heat sink on the slightly curved pressure plate; and
attaching the heat sink to the circuit board.

31. The method of claim 29 further comprising placing a gasket between the integrated circuit package and the slightly curved pressure plate.